MASTER OF SCIENCE
IN
INFORMATION TECHNOLOGY MANAGEMENT

THE NPS LOCATOR SYSTEM
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The purpose of this thesis is to design, develop and implement a personnel locator system at the Naval Postgraduate School (NPS). A prototype locator system was developed and implemented on the NPS TCP/IP network. The locator provides information such as e-mail addresses, phone and fax numbers, and building and office locations, as well as facilities such as hotlinks for e-mail applications and homepages. In addition, the NPS Locator automatically updates its personnel information on a configurable time schedule. This thesis includes a discussion of the prototype development to include requirements tools, and design. Some program code is included as appendices. This paper also discusses the benefits and considerations of intranet technology, and explores a popular Web application architecture on which the NPS Locator is based. Finally, this thesis makes recommendations for improvements to the NPS computing environment to allow for future intranet development.

KEYWORDS: Intranet, Directory, TCP/IP Networking, Web Application, HTTP, CCI

DoD KEY TECHNOLOGY AREA: Computing and Software

WEB-CENTRIC SYSTEMS IN SUPPORT OF ARGUMENTATION,
NEGOTIATION, AND ORGANIZATIONAL MEMORY
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The purpose of this thesis is to propose and demonstrate a new negotiation and argumentation medium. This medium will take advantage of the latest in Web technologies while conducting a detailed analysis and design of a prototype Web-based decision support system to support on-line argumentation, claims, and team decisions. The information obtained from the application will be stored in an ODBC database, to be used as part of the organizational memory. Organization memory will significantly enhance an organization's ability to utilize historical data in conjunction with current decision making requirements. The findings in this study strongly support the strengths of the action-resource based argumentation system (ARBAS) model and indicate that future research and application development would significantly advance the fields of

web-based negotiation and argumentation. A Web-centric prototype developed during this research can be viewed at [http://www.cimnet.nps.navy.mil/thesis].

KEYWORDS: ARBAS, Argumentation, Browser, Cold Fusion, Corporate Knowledge, Database, Decision- Making, Intranet, Negotiation, Organizational Memory, Web Browser, Web-Centric

DoD KEY TECHNOLOGY AREAS: Computing and Software, Human Systems Interface, Manpower, Personnel, and Training